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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,698	11/26/2003	Dhrubajyoti Borthakur	5760-16200	7835
35690	7590	05/19/2006	EXAMINER	
MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C. 700 LAVACA, SUITE 800 AUSTIN, TX 78701			BELL, CORY C	
			ART UNIT	PAPER NUMBER
			2164	

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/723,698

Applicant(s)

BORTHAKUR ET AL.

Examiner

Cory C. Bell

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
**SAM RIMELL**  
**PRIMARY EXAMINER**

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. Claims 1-21 have been examined.

#### *Specification*

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-21** are rejected under 35 USC 112 2<sup>nd</sup> paragraph, those not discussed below are rejected due to their dependency on rejected claims.

5. **Independent Claims 1, 8, and 15** are rejected because it is unclear if “a given file” is one of “a plurality of files”

#### *Claim Rejections - 35 USC § 101*

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 15-21** are rejected under 35 USC 101 as they fail to produce a useful concrete and tangible result, as a computer-accessible medium in non-tangible as it is defined as including

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“transmission media or signals such as electrical, electromagnetic, or digital signals, conveyed via a communication medium such as network and/or a wireless link.”

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3, 5, 8-10, 12, 15-17, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Number 6522268 known hereafter as ‘268.

9. **Independent Claims 1, 8, and 15** are rejected for the following reasons:

A system, comprising: a storage device configured to store a plurality of files(‘268 col 3 lines 5-7, the use of a storage device is inherent); and a file system configured to manage access to said storage device, wherein said file system is configured to: compute a compressed size of at least a portion of a given file; and store an indication of said compressed size in data storage  
corresponding to said given file.(‘268 Col 7 lines 14-24 teach the use of the ZIP protocol, which inherently includes the compressed file size in the header of an archive file and thus the system must inherently calculate the compressed file size and store an indication of it in data storage)

10. **Claims 2, 9, and 16** are rejected for the following reasons:

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2. The system as recited in claim 1, wherein said data storage comprises a named stream,(‘268 Col 6 line 59- Col 7 line 24 the compressed information about the file and the compressed data are a named stream using the broadest reasonable interpretation) and wherein said file system is further configured to store a compression dictionary corresponding to said at least a portion of said given file in said named stream(‘268 col 9 lines 26) subsequent to said computing.(The dictionary is inherently stored after the compressed size is computed as the compressed size must be computed before the file can be stored, as it is a part of the header of the file which is stored before the dictionary)

11. **Claims 3, 10, and 17** are rejected for the following reasons:

3. The system as recited in claim 1, wherein said data storage comprises a named stream, (See claim 2 rejection) wherein said given file includes a plurality of ordered portions(‘268 teaches a file that comprises many files, each or which is placed in order based on similarity Col 5 line 22-29 shows order, Col 5 lines 49-57 shows them as one file), wherein said file system is further configured to store a respective plurality of compression dictionaries in said named stream, and wherein each said respective compression dictionary corresponds to one of said ordered portions.(The use of LZSS, ‘268 Col 9 lines 25-28 which causes new entries to be added to the dictionary as they are encountered and it stored as pointers when the repetition occurs, therefore each file has a different dictionary stored within it).

12. **Claims 5, 12, and 19** are rejected for the following reasons:

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The system as recited in claim 3, wherein a given respective compression dictionary corresponding to a higher-ordered portion of said given file includes a given respective compression dictionary corresponding to a lower-ordered portion (LZSS inherently teaches a higher-ordered portion including a dictionary corresponding to a lower-ordered portion as when the sliding windows enter the new portion the pointer can point to the elements in the previous portion).

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 4, 11, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over ‘268 in view of “Win 32 process suspend/resume tool” by Daniel Turini, 4 Oct 2002, known hereafter as Turini.

15. **Claims 4, 11, and 19** are rejected for the following reasons:

‘268 teaches computing the compressed size of the given portions in Col 12 line 65- Col 13 line 4, but does not expressly disclose being able to suspend the computing of the compressed size of a portion and upon resuming not recomputing the compressed size for the previous portions. Turini teaches the act of suspending a program and resuming it. Suspending and resuming

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would not cause the prior computed compressed sizes to have to be recomputed. Thus it would have been obvious to one of ordinary skill in the art to include this feature as stated by Turimi,

- “You have a time-consuming operation, e.g. a big build, and want to pause it for doing something quickly and resuming it after doing this”

16. Claims 7, 14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over ‘268 in view of “The Similarity Metric” by Li et. al , known hereafter as Li et. al.

17. **Claims 7, 14, and 21** are rejected for the following reasons:

‘268 teaches calculating compressed sizes of files as discussed above but fails to expressly disclose the other limitations of claim 7. However, Li et. al. teaches using a compressed size of a file and a concatenated file size to computer a file harmony metric in definition 4.2 which defines the information distance which is a file harmony metric using the broadest reasonable definition. It would have been obvious to one of ordinary skill in the art at the time of this invention to include this feature in the ‘268 invention as it provides a more accurate way of computing file similarities that are used to order the files, and better ordering would yield better compression.

*Allowable Subject Matter*

18. Claims 6 and 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dictzip(1) 10/24/2003 shows dividing files into blocks for compression.

US 2004/0210608 teaches automatic archival of files.

US 5850565 teaches multiple dictionaries and concatenating files note col 10 lines 21-35.

US 6247015 teaches using an array of dictionaries.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cory C. Bell whose telephone number is (571) 272 2736. The examiner can normally be reached on m-f 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272 4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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A handwritten signature in black ink, appearing to read 'Sam Rimell', with a stylized, cursive script.

**SAM RIMELL**  
**PRIMARY EXAMINER**